

**DESCRIPTION** auto-klean® 40N, 45P and 50R self-cleaning filters are of all-metal plate-type construction and operate on the edge-filtration principle. They are cleaned without interrupting the flow of liquid by one complete turn of the handle attached to the element spindle. This action deposits all the solids accumulated around the element into the filter sump. The filter bodies incorporate support brackets, pressure gauge bosses, a drain valve and sludge door as standard fittings. When required, magnetic inserts are incorporated in the filter body to give additional protection against micronic ferrous particles. These filters can be supplied with electric motors or ratchet-drive for fully automatic or continuous cleaning. For high temperature service, steam-jacketed designs are available.

**APPLICATIONS** All grades of oils and distillates, water, chemicals, beverages, food products, paints, resins, greases and industrial liquids of every kind.

**ELEMENTS**

Diameter	145mm (5.7")
Length	317mm, 394mm or 508mm (12.5", 15.5" or 20") nett.
Mesh	.076mm (.003") .127mm (.005") .203mm (.008") .254mm (.010") .508mm (.020") 1.016mm (.040")

**CONNECTIONS**

Standard	101.6, 114.3 and 127mm (4", 4½" 5") to B.S. Table E.
Special	101.6, 114.3 and 127mm (4", 4½" 5") to B.S. Tables H, J or K.

**PRESSURE**

Maximum Working	5.27Kg/cm <sup>2</sup> (75lb/in <sup>2</sup> )
Test	10.5Kg/cm <sup>2</sup> (150lb/in <sup>2</sup> )

Filters suitable for operation at higher pressures can be supplied if required

**MATERIALS**

Standard	Body	Mild Steel
	Cover	Cast Iron
	Internals	Mild & Stainless Steel, Brass
Special	Body & Cover	Mild or Stainless Steel

**SUMP CAPACITY** See table on page 2

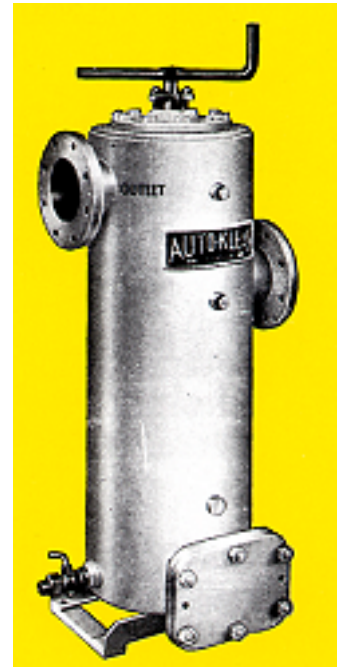
**WEIGHT**

	40N	45P	50R
Filter complete	127kg (280lb)	141Kg (310lb)	158Kg (350lb)
Element only	36kg (80lb)	42Kg (92lb)	47Kg (104lb)

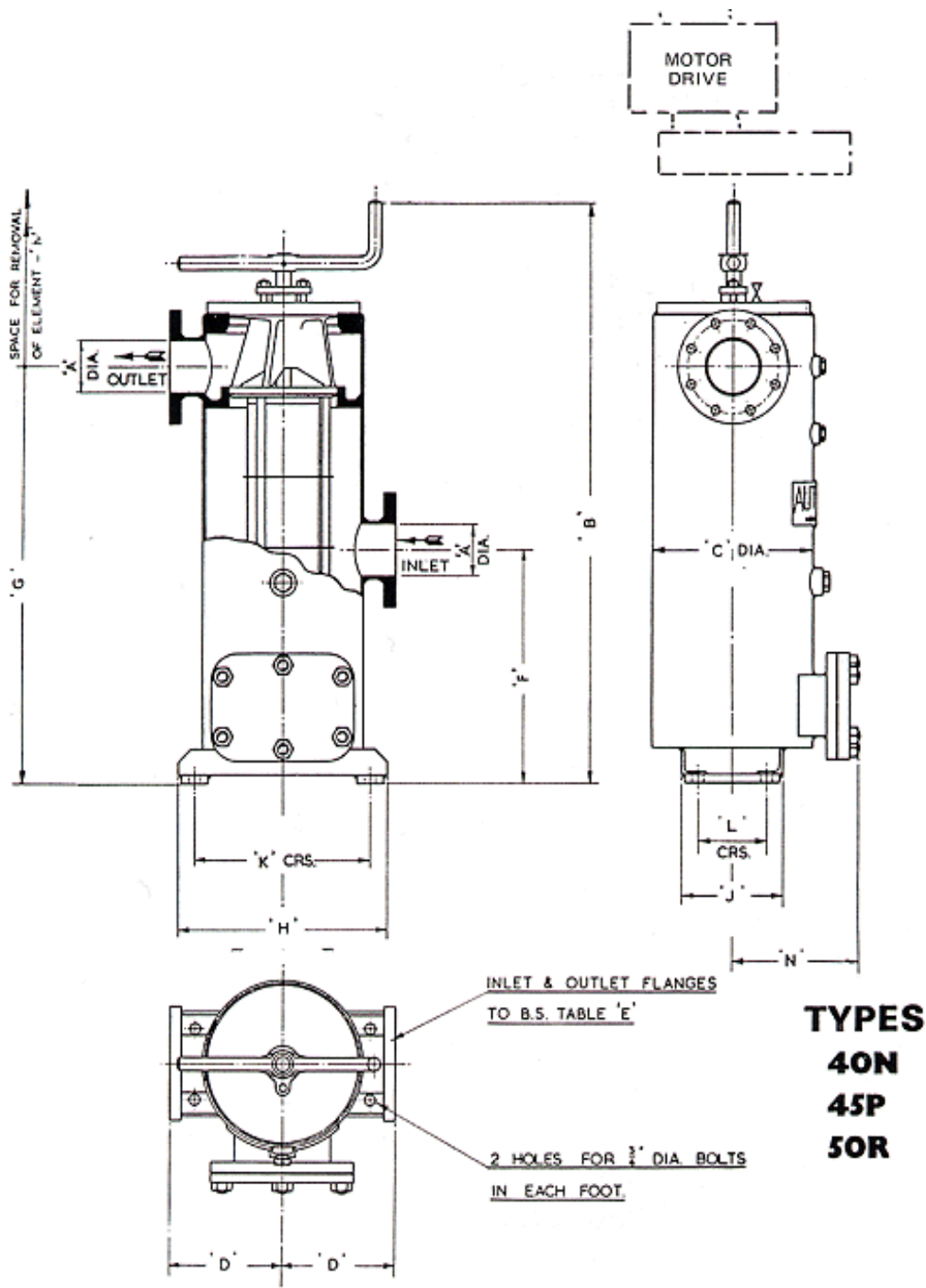
**DIMENSIONS** See drawing and table on page 2

**FLOW RATES** The flow rates listed below cover only a limited range of applications. Capacities for other liquids and filter meshes will be quoted on request. For discharge filters the capacities are based on a pressure drop of 0.1 to .015 Kg/cm<sup>2</sup> (1.5 to 2lb/in<sup>2</sup>) across a clean element.

Maximum flow rate for any conditions **97 metres<sup>3</sup> (22,000 gallons) per hour.**



Service	Element Length		Auto-Klean Mesh		Equivalent Gauze Mesh	Free Area		Capacity					
	mm	in	mm	in		cm <sup>2</sup>	in <sup>2</sup>	Gallons Per Hour			Metres <sup>3</sup> Per Hour		
	Viscosity Seconds Redwood No.1			Viscosity Engler Degrees									
Engine and Heavy Machine Lub. Oil Discharge	318	12.5	.076	.003	150 x 150	1300	20.2	250	1000	2000	8.1°	32.5°	65°
			.127	.005	100 x 100	2010	31.2						
	508	20	.076	.003	150 x 150	2070	32.1	5600	1700	900	25	8	4
			.127	.005	100 x 100	3170	49.1	9000	4400	2400	41	20	11
			8200	2800	1500	37	13	7					
							13000	5400	2800	59	25	13	
							1000	2000	3000	32.5°	65°	100°	
Boiler Fuel Oil Suction 1 ft. water gauge pressure loss	318	12.5	.508	.020	30 x 30	5420	84	2100	1200	880	10	5	4
			1.016	.040	20 x 20	8060	125						
	394	15.5	.508	.020	30 x 30	6510	101	3150	1800	1320	14	8	6
			1.016	.040	20 x 20	10000	155	2600	1500	1100	12	7	5
			.508	.020	30 x 30	8380	130	3900	2250	1640	18	10	7
508	20	.508	.020	30 x 30	8380	130	3300	1900	1420	15	9	6	
		1.016	.040	20 x 20	12840	199	5000	2900	2050	23	13	9	
							Up to 200						Up to 6.5°
Hot Discharge	318	12.5	.254	.010	60 x 60	3280	50.8	9000	20000	22000	41	45	55
			.254	.010	60 x 60	4080	63.2						
			.254	.010	60 x 60	5190	80.5						
Water and Aqueous Solutions	508	20	.254	.010	60 x 60	5190	80.5	20,000	21,120		91	96	
			.508	.020	30 x 30	8380	130						



**TYPES**  
**40N**  
**45P**  
**50R**

Type	Elements Length	Dimensions												Sump Capacity
		A	B	C	D	F	G	H	J	K	L	M	N	
	inches	Inches												Gallons
40N	12½	4	43½	12	8	17¾	31	15	7¼	13½	5¼	38	9¼	3½
45P	15½	4½	51½	14	10¼	28¾	37¾	18	10	16	8	46	11¼	4
50R	20	5	51½	14	10¼	28½	32¾	18	10	16	8	46	11¼	4½
	cm	Centimetres												Litres
40N	31.8	10.2	109.9	30.5	22.1	44.1	78.7	38.1	19.7	34.3	13.3	96.5	24.8	15.9
45P	39.4	11.4	130.8	35.6	26.0	72.4	95.6	45.7	25.4	40.6	20.3	116.8	28.6	18.2
50R	50.8	12.7	130.8	35.6	26.0	72.4	95.6	45.7	25.4	40.6	20.3	116.8	28.6	20.5

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